

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523
BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY

Batch 77

1. SUBJECT
CLASSI-
FICATION

A. PRIMARY

Food production and nutrition

AE70-0080-G580

B. SECONDARY

Distribution and marketing - Afghanistan

2. TITLE AND SUB-TITLE

The nature of livestock marketing and meat consumption per capita in Afghanistan

3. AUTHOR(S)

Hakimi, M. Y.

4. DOCUMENT DATE

1976

5. NUMBER OF PAGES

36p.

6. ARC NUMBER

ARC

7. REFERENCE ORGANIZATION NAME AND ADDRESS

AID/NE/USAID/Afghanistan

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)

9. ABSTRACT

10. CONTROL NUMBER

PN-AAF-234

11. PRICE OF DOCUMENT

12. DESCRIPTORS

Afghanistan
Food consumption
Livestock
Marketing

13. PROJECT NUMBER

14. CONTRACT NUMBER
Aid, NE/USAID/Afghanistan

15. TYPE OF DOCUMENT

AIO/ASIA/USAID/Afghanistan
PN-AAF-234

THE NATURE OF LIVESTOCK MARKETING AND
MEAT CONSUMPTION PER CAPITA IN
AFGHANISTAN

BY

Mohammad Youssof Hakimi
Lawyer and Marketing Specialist

U.S.A.I.D.
Kabul, Afghanistan

November 14, 1976

**THE NATURE OF LIVESTOCK MARKETING AND
MEAT CONSUMPTION PER CAPITA IN AFGHANISTAN**

TABLE OF CONTENTS

	<u>Page</u>
I. Introduction	1
II. Requirements of a Successful Marketing System	1
III. The Nature of Livestock Markets in Afghanistan.	3
IV. The Relationship of Marketing to Production in Afghanistan	4
V. Importance of Meat Animals.....	4
VI. Changing Marketing Methods in Afghanistan.....	12
VII. Development of the Livestock Marketing Problem in Afghanistan	12
VIII. Meat Production and Consumption in Afghanistan.....	13
IX. Livestock Supply Areas in Afghanistan in 1346 (1967/68)	23

THE NATURE OF LIVESTOCK MARKETING AND MEAT CONSUMPTION PER CAPITA IN AFGHANISTAN

I. INTRODUCTION

Livestock marketing is the final step in the stockman's operation. His profits and losses depend on the market situation, labor supply, capital investment and how well he markets his animals. Proper feeding, good breeding and adequate management are necessary for a profitable operation. Unfortunately, marketing is the least understood phase of animal producers' and stockmen's operations. It is a dubious position to say that stockmen are not winning the battle of efficient production. Yet marketing remains a major and complicated problem for the animal producers, animal sellers and middle-men.

Fundamentally, marketing entails the transfer of ownership of goods and payment between animal producers (sellers) and buyers. Animal marketing embracing all the functions (such as planning, organization, staffing, controlling, coordination and innovation) that takes place between producers and final customers. The main and major problems of marketing are: how to supply, when to supply where to supply and for whom to supply as cheaply and efficiently as possible for the various equalizing and non-equalizing differential earners. And the function of livestock marketing is not completed until the meat and by-products are in the hands of final consumers. The sheep from the grass lands of Baid-rah (Faryab province) may travel over the Hindu Kush mountains on their way to the Kabul central livestock market, but afterward the sheep reach the final consumers in the form of stew, gulash, kabab and so on. In the western modernized countries, by-products of slaughtered sheep are many, including such items such as gelatine, glue, fertilizer, oleo or oleum and shoes.

The most important functions of livestock marketing are: (1) cutting the meat animals into the cuts and products for the consumer; and (2) locating the products in the hands of demanders at the desired location, at the right and exact time, and of the quality and quantity desired. Thus the marketing of slaughter animals covers all the channels between producers and final consumers of the meat.

II. REQUIREMENTS OF A SUCCESSFUL MARKETING SYSTEM

In the large livestock producing areas of Afghanistan, all types, weights and grades of various animals such as cattle, sheep, lambs, goats, buffaloes and camels are produced. As we know, there is always a demand in the major markets

for every kind, grade, and weight of desired beef, mutton, chevon, veal, buffalo and camel flesh. In an efficient marketing system, the prime importance is to distribute the available meat supply in order to match the demand as nearly and efficiently as possible. The main function of a successful marketing system for livestock does not stop with just moving products through marketing channels to retailers and consumers; for a successful system needs studies of the existing and future potential demand, to induce animal producers to produce what is wanted, at the right time. Balancing supply and demand is more easily said than done, because many factors tend to hinder such a smooth adjustment. For instance, the grass grows during the spring and summer and grain ripening time is in the early fall; this combined with seasonal breeding and seasonal changes in the farm economy, results in a highly seasonal production of animals.

Often, the animals offered for sale differ greatly from what the retailer or consumer really wants, and frequently the animal suppliers are reluctant to make a change. This is the current situation for all types of animals in Afghanistan. Present consumer demand is for boneless meat of calves and cattle in the major central markets while in the hinterland and remote markets, mutton with bone is preferred by consumers. A campaign has been and is currently being carried on by the Ministry of Agriculture with Australian technicians in the provinces of Choro, Badghis, Jauzjan and Faryab to educate the animal producers to produce more nearly what the markets prefer.

The campaign and project of the Ministry of Agriculture in the cited provinces is expected to raise the incomes of approximately 34,000 families of livestock producers. The total cost of the project is calculated to be about U.S. \$2,230,000. The annual benefits of the project to the economy approximate U.S. \$20 million. The direct income of the project is U.S. \$24.5 million annually of which the net income amounts to about U.S. \$7.2 million per year.

These kinds of projects are aiding the campaign for increased production of meat-type animals and for payment for such animals on a merit or "worth" basis. The success of the campaign would increase consumer satisfaction and the animal producers would benefit from increased returns through restored consumer acceptance for all kinds of red meat.

The less desirable products such as the meat from older cattle, cows buffaloes and camels, or carcasses that grade commercial or lower, pose problems to meat merchandisers. Although the meat is nutritious and acceptable, it is generally less tender, dark red, coarse and dry.

Almost 80% of commission merchants, jobbers, brokers, retailers and consumers prefer to handle prime and choice grades. Provincial butchers and consumers prefer younger cattle, sheep, goats, buffaloes and so on which are moderately heavy and with fat amounting to about 35% of the chilled carcass weight. In Kabul, however, the majority tends to buy lean meat. Meat retailers present undesirable cuts of animals to the consumers just as they come from the carcasses. If customers (housewives, hospitals and first-class restaurants) fail to buy such cuts, the retailers have to mark the price down in an effort to sell them to the middle and low level restaurants such as kababi, small tea and food houses and the evening rest places on the highways. Such low-level customers have to trim, grind and convert the meat into small cuts and mince to make kabab, Chainaki and Karaie. However the picture shows a small improvement in the case of supplying undesirable cuts of animal's meat to the consumers throughout the country, because the municipalities require butchers to supply desirable and acceptable meat cuts to the consumers.

In recent years, the tendency of customers (especially in Kabul) is for mutton, chevon and lamb-meats with bone and defatted and for chuck, plate, round, flank hindshank, foreshank, rump and brisket with fat and without bone. But in most provinces the consumers' tendency shows a vice-versa picture -- they prefer fatty mutton and sometimes beef with bone. However the meat-cutters are highly aware of the variability in consumer's tastes and behavior and do their best to supply what the customers want, at the right time, with adequate quantity and acceptable quality as cheaply and efficiently as possible.

III. THE NATURE OF LIVESTOCK MARKETS IN AFGHANISTAN

As we know, the word "Market" has different meanings. For example, it may refer to a "market area" or to a "market place." However a market area is greatly distinguished from a market place. A market area embraces the territory over which the forces of supply and demand determine prices. A market place is a location at which the exchange and negotiation of goods take place. Therefore, it can be said that several market places may exist within a market area.

IV. THE RELATIONSHIP OF MARKETING TO PRODUCTION IN AFGHANISTAN

It is quite obvious that marketing is the last phase of the entire production operation and is actually a vital part of the broad field of production. The entire production operation creates the form, time place and possession utilities. Breeding, feeding and management are usually related in the production of form utility. Keeping animals during the periods of slack demand and moving them during periods of scarcity creates time utility. Animal producers ship their products from a surplus area to a deficit area, thereby creating place utility. Finally products will reach the various consumers. This operation creates possession utility.

As yet, the problems of development, breeding, feeding and disease control have not eliminated or even reduced. On the other hand, the problems of livestock marketing are going to be complex throughout the country. Therefore, the knowledge of 60% of stockmen who also work as animal producers must be considered broader on both sides (production and marketing). In Afghanistan a successful animal producer has to be essential by a businessman, because he is living in days of intensive competition, and he must understand the nature and relationship of production, processing, marketing, merchandising, economic climate and structure and consumer preference.

V. IMPORTANCE OF MEAT ANIMALS

Since very early times, livestock production has been a keystone in our country's agriculture and it is increasing and developing continuously. Livestock accounts for about 10% of the G.D.P. (Gross Domestic Production) or a total of exports valued at 29.4 million dollars. This is about 40% of the total export value.

Livestock production is taking on an increasing importance from year to year because of an expanding population, the shifting habits in our eating and the increasing demands for adequate quantity and desirable quality. All these factors will act to increase the importance and to improve the efficiency of livestock production in Afghanistan, since the production of meat animals is one of the most important branches of our country's agriculture.

The livestock industry is based primarily on grass lands and hay crops. In Afghanistan, almost 308 million jeribs (59.6 million ha.) of land is in grass. Of this, about 258 million jeribs (50 million ha.) are in pastures and 9.3 million jeribs (1.8 million ha.) of land in forests.

Table 1-1 Land Use in Afghanistan*

Total Area (Afghanistan)	327.7 million jeribs	63.5 million ha.	Percentage
1. Mountains	20.12	3.9	6.14
2. Pastures	258.00	50.0	78.74
3. Forests	9.29	1.8	2.84
4. Agricultural Areas	40.25	7.8	12.28

* Source: IBRD

According to the Central Statistics Office, there are about 54.7 million ha. of winter, spring-autumn and summer pastures (Table 1-2), while the IBRD reports 50 million hectares, a discrepancy of 4.7 million hectares. The total area of seasonal pastures in Afghanistan which have been issued by C.S.O. could be described briefly.

Table 1-2 Seasonality Pasture in Afghanistan

Seasons	Area (000) hectares	Percentage
Winter Pastures	16,210	29.63
Spring & Autumn Pastures	16,030	29.31
Summer Pastures	22,460	41.06
TOTAL	54,700	

Table 1-2 shows that the area of spring and autumn pastures is almost half that of the winter area, and the summer pastures area is approximately three times larger than the area of spring and autumn pastures. This means that there is not enough food for animals during the periods of autumn and spring. Since spring is lambing time, pregnant animals need fresh food for themselves and

for their babies. If they can not get adequate fresh grasses at the right time, there is not doubt but that they will lose their weight and health.

Animals utilize many other crops such as barley, vetch, cottonseed cake, cottonseed hulls, sugar beet pulp, beet molasses, the concentrated cakes of sesame, flax and mustard and so forth. Although wheat flour is primarily for human consumption, animals some times utilize wheat, the so-called ARDABA.

Dried beet pulp, cottonseed cake and beet molasses are valuable high-energy feeds utilized by ruminant animals. Cottonseed hulls are also acceptable in a ruminant diet, but at present time, cottonseed hulls are used as fuel and the bulk of sugarbeet pulp and molasses produced at the Baghlan mill is disposed of in the river.

Table 1-3 Cotton and Sugar-Beet Industry By-Product Production

Product	Percent* T.D.N.	1975	
		Material (ton)	T D N./ton
Cottonseed Cake	64	45,000	29,000
Cottonseed Hulls	40	22,000	9,000
Sugar Beet Pulp	60	5,000	3,000
Beet Molasses	62	13,000	8,000

* Total digestible nutrients.

Source: IBRD

Some 3.3 million ewes could each be fed 15 kg of T.D.N. over a period of a month if the by-products of the present cotton and sugar beet industries could be utilized for this purpose.

In the northern parts of Afghanistan such as Kunduz, Takhar, Samangan, Mazar-i-Sharif, Jawzjan and Faryab and in the southwest parts such as Kandahar and Helmand Valley, livestock, during the summer times utilize the melon and watermelon's skins. Fodder crops, such as alfalfa, red clover, barley are also cultivated under irrigation. Large areas of these crops are

as follows:

Barley is grown in a large area of Ujgoon (Paktia) Katawaz (Ghazni) Kandahar, Herat and Logar.

Alfalfa and red clover are grown near to the cities and the remote areas of the towns.

The following numbers indicate the importance of meat animals in our country. According to the Ministry of Planning estimates, there are 20.0 million sheep, 3.0 million goats, 4.0 million cattle, 0.4 million horses, 0.3 million camels and 6.0 million chickens in the year of 1975 and 1976. Animal numbers were reduced during the 2-year drought of 1970 - 1972 and the estimates of livestock numbers before and after the droughts, presented here as:

Table 1-4 Livestock Numbers (in millions) during the Pre-Drought and Post-Drought Years.

Animals	Pre-Drought	Post-Drought	Percent Change
Sheep	21.4	12.8	-40.19
Goats	3.1	3.0	- 3.23
Cattle	3.7	3.4	- 8.11
Horses	0.4	0.4*	-
Camels	0.3	0.3*	-
Poultry	6.0	6.0*	-

* No change or slight increase.

Table 1-5 Livestock Population in Afghanistan from 1957 to 1976 (in millions)*

<u>Year</u>	<u>Karakul Sheep</u>	<u>Mutton Sheep</u>	<u>Total (Sheep)</u>	<u>Goats</u>	<u>Cattle</u>
1336 (1957/58)	2.8	13.6	16.4	1.5	1.9
1337 (1958/59)	3.4	18.6	22.0	1.5	2.3
1338 (1959/60)	4.1	13.4	17.5	1.7	2.4
1339 (1960/61)	4.7	15.5	20.2	1.4	2.7
1340 (1961/62)	5.6	13.8	19.4	3.9	2.9
1341 (1962/63)	6.6	16.3	22.9	2.3	3.7
1342 (1963/64)	5.1	12.2	17.3	3.0	3.7
1343 (1964/65)	5.5	13.6	19.1	3.2	3.5
1344 (1965/66)	5.6	15.0	20.6	3.2	3.6
1345 (1966/67)	5.6	15.0	20.6	3.2	3.6
1346 (1967/68)	6.0	15.0	21.0	3.2	3.6
1347 (1968/69)	6.5	15.0	21.5	3.2	3.7
1348 (1969/70)	7.0	15.0	22.0	3.2	3.7
1349 (1970/71)	6.4	15.0	21.4	3.1	3.7
1350 (1971/72)	3.8	9.0	12.8	3.0	3.4
1351 (1972/73)	4.2	10.7	14.9	3.0	3.4
1352 (1973/74)	4.4	11.4	15.8	3.1	3.5
1353 (1974/75)	4.9	12.3	17.2	3.1	3.3
1354 (1975/76)	5.2	13.1	18.3	3.0	3.7
1355 (1976/77)	5.6	14.4	20.0	3.0	4.0
Average	5.15	13.89	19.04	2.79	3.32

* Source: C.S.O/ Ministry of Planning, Ministry of Agriculture and L.B.R.D.

For the twenty year period of 1336-1355 (1957/58 - 1976-77) there was an average of 19.04 million sheep and lambs, 2.79 million goats and kids and 3.32 million cattle and calves. The deviations from the overall means and the year-to-year percentage changes can be derived from Table 1-5. (page 8).

Table 1-6 Deviation from Overall Mean and the Percent Changes of Livestock Numbers in Afghanistan from 1336 - 1355

Year	Deviations from Overall Means (in millions)			Year-to-Year		
	Sheep	Goats	Cattle	Sheep	Goats	Cattle
1336 (1957/58)	-2.64	-1.29	-1.42	-	-	-
1337 (1958/59)	2.96	-1.29	-1.02	34.15	0.00	21.05
1338 (1959/60)	-1.54	-1.09	-0.96	-20.45	13.33	4.35
1339 (1960/61)	1.16	-1.39	-0.62	15.43	-17.65	12.50
1340 (1961/62)	0.36	1.11	-0.42	-3.96	178.57	7.41
1341 (1962/63)	3.86	-0.49	0.38	18.04	-41.03	27.59
1342 (1963/64)	-1.76	0.21	0.38	-24.45	30.43	0.00
1343 (1964/65)	0.06	0.41	0.18	10.40	6.67	-5.41
1344 (1965/66)	1.56	0.41	0.28	7.85	0.00	2.86
1345 (1966/67)	1.56	0.41	0.28	0.00	0.00	0.00
1346 (1967/68)	1.96	0.41	0.28	1.94	0.00	0.00
1347 (1968/69)	2.46	0.41	0.38	2.38	0.00	2.78
1348 (1969/70)	2.96	0.41	0.38	2.32	0.00	0.00
1349 (1970/71)	2.36	0.31	0.38	-2.73	-3.13	0.00
1350 (1971/72)	-6.24	0.21	0.08	-40.19	-3.23	-9.11
1351 (1972/73)	-4.14	0.21	0.08	16.41	0.00	0.00
1352 (1973/74)	-3.24	0.31	0.18	6.04	3.33	2.94
1353 (1974/75)	-1.84	0.31	-0.02	8.86	0.00	-5.71
1354 (1975/76)	-0.74	0.21	0.38	6.40	-3.23	12.12
1355 (1976/77)	0.96	0.21	0.68	9.29	0.00	8.11

Comment:

A. Sheep population during the years of 1336 through 1355 has not been level, but rather has fluctuated from year to year. In the years of 1336, 1338, 1342,

1350, 1351, 1352, 1353 and 1354 for example sheep numbers were lower than the overall mean. In 1350 sheep numbers were down drastically when compared with other years. This loss was due to the severe 2-year drought of 1970-1972.

B. Goat population in the years of 1336 through 1339 and 1341 was below the overall mean. From 1341 through 1348 goat numbers were almost steady throughout the country. But since 1349 the deviations from the overall mean has been ranged from 0.21 to 0.31 million goats.

C. Cattle population from years 1336 through 1340 was lower than the mean, while in the remaining years cattle numbers were greater than mean with deviations ranging from 0.18 to 0.38 millions. (Except for the years of 1350, 1351 and 1353 which indicated very low numbers.)

The highest deviation figure for cattle from the overall mean was 0.68 millions in 1355 and the lowest deviation number from mean was estimated as (-1.42) million cattle in 1336.

The highest deviation range for sheep and goats from overall mean are 3.86 and 0.41 millions respectively, and the lowest numbers are quoted as (-6.24) millions of sheep and (-1.39) millions for goats.

According to our information from livestock owners, animal producers and livestock leasees, livestock production in Afghanistan generally follows two patterns: That of the nomads and that of the settled farmers. Nomads usually keep the larger herds of 2,000 to 3,000 heads of sheep, while the animal number of the settled farmers is generally limited but it is agreed that the livestock population of the settled farmers is larger than that of the nomads.

The most important livestock in Afghanistan are karakul sheep, mutton sheep, goats, and cattle. The cattle of Afghanistan are almost all of low genetic quality breeds. They look very emaciated and the bones often show through the skin. In a normal year, 80% of the mature mutton and karakul sheep deliver. The goats some times get twins. Approximately 50% of the cows calve every year. According to our information from various animal producers and the livestock owners, animal numbers increase in the range of 10-20% yearly. But a realistic computation indicates that the animal population does not increase by more than 10% per year. Limited pastures, the lack of stored winter feed, the lack of water points, hard winters and diseases (such as sheep pox, anthrax, blackleg, enterotoxemia, Newcastle and rinderpest) are the main constraints to increasing the animal population in Afghanistan.

Afghanistan and Australia made an agreement to complete the survey work of livestock production in several provinces; the main objectives of the new projects in four provinces (Ghor, Badghis, Jauzjan and Faryab) are as follows:

1. Preparation of potable water and pastures for various meat animals.
2. Protection of animals against all diseases.
3. Maximum utilization of sheep products.
4. Coordination of individual livestock breeder activities under the framework of cooperative societies and distribution of necessary credits.
5. Enlightening of livestock breeders and nomads (kochis) in order to take active part in the state livestock programs.
6. Searching for better markets and other livestock facilities for middle men and animal producers.

Establishing of 31 livestock centers with potable water facilities, and storing of sufficient quantity of pastures for winter season and construction of shelters for the newly-born lambs, providing of credits for the purchase animal skins (karakul) for the cooperative societies of Jowzjan and Faryab provinces, construction of an animal products factory in Baghlan and construction of another factory in Badghis for the preparation of pastures, and finally setting up of a center in Kala-e-Naw for the washing, curing salting, scouring, drying, sorting and marketing of Karakul pelts and wool.

According to all present indications, the relative position of all animal production in our agriculture promises to become more important during the forthcoming years.

Meat animal numbers are expected to expand during the next few years and total red meat supplies should keep pace with the increasing population.

The population of livestock in the whole country is presented in Table 1-5. The number of livestock and the fluctuation of animal numbers from year to year is considerable.

There are many reasons for the fluctuations, some of them are presented here as:

- 1) Severe winter with snow in the north, west and middle parts of the country.
- 2) Drought causing shortage of grazing vegetation and consequently less winter hay storage.

VI. CHANGING MARKETING METHODS IN AFGHANISTAN

There are many factors about changes in methods of marketing livestock and all type of meat animals in Afghanistan during the past several years. One of the main factors shows the shifting in areas of production, paralleled with the expanded population in the provincial centers and major cities. In other words the production areas are trying to match up with the consumer areas, therefore, according to this method meat animals move over hundreds of kilometers across the Hindu Kush mountains from production areas to consumption areas.

The second factor about changes in methods of marketing livestock is the change in methods of transportation of livestock and storage of meats (Kabul and Herat Abattoirs). For example, the replacement of foot movement to a large extent by trucks has aided the tremendous expansion of livestock auction markets. Also, we could mention the improvement in market avenues. In the past, animal producers or livestock owners shipped their animals to the desired markets directly but now commission merchants, jobbers and brokers are carrying out their shipping functions to the auction markets, therefore the middle men (commission merchants, jobbers, brokers) take care of merchandising and day-to-day profitable sales.

This brief summary indicates that the marketing field in Afghanistan is far from static at the present time. Population, civilization, technology and many other sociological things are changing and our livestock marketing structure should continue to be subject to those changes too.

VII. DEVELOPMENT OF THE LIVESTOCK MARKETING PROBLEM IN AFGHANISTAN

The present-day methods of marketing livestock in Afghanistan are the result of pioneer days' conditions. Since the main livestock owners are settled in the north part of Afghanistan and the human population became concentrated in the south, south east and south west, our former methods of marketing livestock showed its inadequacy and inefficiency in moving the supply from the areas of production into the consumers' areas. Thus the functions of marketing livestock faced with a few major objectives, those objectives presented here as:

1. The disseminating of livestock from a surplus area into the deficit areas.
 2. The provision of meat products from these meat animals (Herat Livestock Developing Corporation H.L.D.C.) and;
 3. The distribution of perishable products in the hands of various consumers.
- In summary, it may be said that the livestock-marketing problem emerged with the growth of towns and cities during the past fifteen-year period.

In the remote areas of Afghanistan, the marketing problem does not exist and there is no need for a marketing system, because the people in these remote areas live on the land and the family is entirely self-sufficient, producing its own meats, animal ghee, and wool. But the marketing problem in the towns and cities is the opposite, because their population grew, the social organization became complex and many other human relationships became complete. Therefore, the marketing system in the towns and cities took on today's form.

VIII. MEAT PRODUCTION AND CONSUMPTION IN AFGHANISTAN

1/

According to Mr. L. A. Pastidis the total meat production from sheep, goats and cattle in Afghanistan in 1962 was 141,000 tons, of which 66,400 tons was mutton; 7,600 tons chevon; and 16,455 tons beef. Of the total, 90,455 tons or 64 percent originated from the northern provinces.

However, one would make a mistake if he thinks that only the north provinces Afghanistan are surplus areas. Also it should be said that Farah and Kandahar produce surplus red meat for the consumers of deficit areas too.

According to our interviewes with livestock producers, livestock owners and livestock market leasees and other officials who are involved with livestock, the total slaughtering of lambs and mature mutton sheep is approximately 30 percent yearly. In a normal year one hundred sheep which are older than two years will produce 80 lambs, and the death rate is calculated around 10 percent - 15 percent per year.

The total slaughtering of Karakul sheep during the year is about 50 percent of rams and the ewes are kept for pelts. The rate of reproduction in goats is a hundred kids from hundred doe goats (female goats very often deliver twins) and the death rate for goats is estimated as 10 percent per year. For the total slaughtering of goats, we can calculate approximately 35 percent annually.

1/ L. S. Pastidis, Production and Marketing of Skins and Hides in Afghanistan, Kabul, 1963.

The death rate for cattle is the same as for sheep or goats in a normal year, and the slaughtering rate is considered to be around 10 percent per annum.

Therefore, according to the cited statements, one may calculate the yearly possible amount of meat production in Afghanistan, by comparing the two tables (Table 1-5 Animal Population Page 8 and Table IV., The Marketing of Livestock and Meat in the City of Kabul).

(Table 1-7 is on the following page)

The computation of the tables could be described as follows:

A. Karakul Sheep (K.S.)

From the total karakul sheep population we assume that there are 85 percent karakul ewes and the remaining percentage is ram. The lambing rate is estimated as 80 percent and fifty percent of this 80 percent is ram (babies). This 50 percent is slaughtered because of pelts, (the livestock producers keep 5 percent for new crops and substitute 5 percent from female babies for slaughtering) and the carcass weight of new born karakul sheep is calculated as 2.5 kilos. An example would make clear our estimates:

For instance, the total karakul sheep population in 1336 was 2.8 million sheep, and 85 percent of 2.8 million which is supposed to be ewes gives 2.38 million karakul sheep; 80 percent of 2.38 million which are new-born are 1,904,000 babies and fifty percent of the new born which indicates a figure of 952,000 rams, is supposed to be slaughtered. If we multiply this figure 952,000 by 2 kilos (carcass weight) the result would be 1,904,000 kilos or 1904 tons of meat.

According to our calculation, the growth rate for karakul sheep in 1336 was 34 percent. If we deduct the death rate (in a normal year the death rate is estimated around fifteen percent), we may say that the growth rate for karakul sheep in 1336 was approximately 19 percent per year.

* Source: Mohamamad Youssof Hakimi: The Marketing of Livestock and Meat in the City of Kabul, Page 32 Table IV, November 15, 19 U.S./AID Kabul, Afghanistan.

Table 1-7 The Possible Amount of Meat Production in Afghanistan During the Years of 1336 (1957/58) through 1355 (1976/77)

Year	Animal Population (in million)				Average Carcass Weight per kilo *				The Possible Amount of Meat Production				
	K.S	M.S	GO	CA	K.S	M.S	GO	CA	New Born K.S	M.S	Chevon	Veal & Beef	Total per ton
1336	2.8	13.6	1.5	1.9	2	16.04	14.43	61.83	1,094	65,443	7,570	11,748	86,670
1337	3.4	18.6	1.6	2.3	"	"	"	"	2,312	89,503	7,570	14,221	113,612
1338	4.1	13.4	1.7	2.4	"	"	"	"	2,788	64,481	8,586	14,839	90,694
1339	4.7	15.5	1.4	2.7	"	"	"	"	2,196	74,586	7,071	16,694	101,547
1340	5.6	13.8	3.9	2.9	"	"	"	"	3,808	66,406	19,697	17,931	107,841
1341	5.6	16.3	2.3	3.7	"	"	"	"	3,808	78,436	11,616	22,877	116,737
1342	5.1	12.2	3.0	3.7	"	"	"	"	3,468	58,706	15,152	22,877	100,203
1343	5.5	13.6	3.2	3.6	"	"	"	"	3,710	65,443	16,162	21,641	106,955
1344	5.6	15.0	3.2	3.6	"	"	"	"	3,806	72,180	16,162	22,259	114,409
1345	5.6	15.0	3.2	3.6	"	"	"	"	3,808	72,180	16,162	22,259	114,409
1346	6.0	15.0	3.2	3.6	"	"	"	"	4,080	72,180	16,162	22,259	114,681
1347	6.5	15.0	3.2	3.7	"	"	"	"	4,420	72,180	16,162	22,877	115,039
1348	7.0	15.0	3.2	3.7	"	"	"	"	4,760	72,180	16,162	22,877	116,079
1349	6.4	15.0	3.1	3.7	"	"	"	"	4,352	72,180	15,657	22,877	115,086
1350	3.8	9.0	3.0	3.4	"	"	"	"	2,584	43,308	15,152	21,022	82,066
1351	4.2	10.7	3.0	3.4	"	"	"	"	2,856	51,488	15,152	21,022	90,518
1352	4.4	11.4	3.1	3.5	"	"	"	"	2,992	54,857	15,657	21,041	95,146
1353	4.9	12.3	3.1	3.3	"	"	"	"	3,332	59,188	15,657	20,404	98,581
1354	5.2	13.1	3.0	3.7	"	"	"	"	3,536	63,037	15,152	22,877	104,603
1355	5.6	14.4	3.0	4.0	"	"	"	"	3,808	69,293	15,152	24,732	112,985

* Source: Mohammad Youssof Hakimi, The Marketing of Livestock and Meat in the City of Kabul.

K.S : Karakul Sheep

GO : Goat

M.S : Mutton Sheep

CA : Cattle

B. Mutton Sheep (M.S.)

In 1355, the total population for ordinary sheep (mutton sheep) was 14.4 million, and according to our information from various sources the total slaughtering of lambs and mature sheep in Afghanistan is estimated at 30 percent per year. Therefore the result of 30 percent of 14.4 million sheep would be 4.32 million sheep. According to our estimation the average chilled carcass weight for sheep and lamb (Table IV, the Marketing of Livestock and Meat in the City of Kabul, written by M. Y. Hakimi, November 15, 1975) is calculated as 16.04 kgs. Therefore the total chilled carcass weight of slaughtered sheep would be 69,292,800 kgs. or 69,293 tons.

C. Chevon (GO).

The method of estimating chevon (goat meat) production in Afghanistan is the same as for mutton production. For example, the total population for goat in 1350 was reported as 3.0 million goats and according to the livestock owners, livestock producers, and livestock market leasees informations the total slaughtering of goats in Afghanistan is estimated as 35 percent yearly. Thus, the thirty five percent of 3.0 million goats represent a figure of 1,050,000 goats, the number of goats supposed to be slaughtered during the year. The average chilled carcass is calculated as 14.43 kgs., if we multiply the total amount of slaughtered goats by 14.43 kgs., the result is 15,151,500 kgs. Thus the possible amount of chevon production in 1350 was 15,152 tons.

D. Veal and Beef (Cattle)

The production method of veal and beef in Afghanistan is the same as chevon and mutton production method. For example, in 1340 the total number of cattle reported at 2.9 million calves and cows, ten percent of cattle is slaughtered annually. Therefore the total slaughtering number of calves and cows is 290,000 and according to the research which have been done by M. Y. Hakimi (The Marketing of Livestock and Meat in the City of Kabul) the average carcass weight is calculated as 61.83 kgs. After a brief accounting the total amount of veal and beef would be 17,931 tons. From Table 1-7, the Possible Amount of Meat Production in Afghanistan during the years of 1336 through 1355, we can estimate the relative amounts of all red meat for consumption in Afghanistan.

Table 1-8 Estimated Relative Amounts of all Red Meat for Consumption in Afghanistan during the Years of 1336 through 1355.

<u>Year</u>	<u>Karakul Sheep Meat %</u>	<u>Ordinary Sheep Mutton %</u>	<u>Goats Chevon %</u>	<u>Cattle, Veal and Beef %</u>
1336	2.20	75.51	8.74	13.55
1337	2.03	78.38	6.67	12.52
1338	3.07	71.10	9.47	16.36
1339	3.15	73.45	6.96	16.44
1340	3.53	61.58	18.26	16.63
1341	3.26	67.19	9.95	19.60
1342	3.46	58.59	15.12	22.83
1343	3.50	61.17	15.11	20.22
1344	3.33	63.08	14.13	19.46
1345	3.33	63.08	14.13	19.46
1346	3.56	62.94	14.09	19.41
1347	3.82	62.42	13.98	19.78
1348	4.10	62.24	13.94	19.72
1349	3.78	62.73	13.61	19.88
1350	3.15	52.77	18.46	25.62
1351	3.16	56.88	16.74	23.22
1352	3.14	57.66	16.46	22.74
1353	3.38	60.04	15.88	20.70
1354	3.38	60.26	14.49	21.87
1355	3.37	61.33	13.41	21.89

Comment:

If we look at the Table 1-8 Estimated Relative amounts of All Red Meat for Consumption in Afghanistan during the Years of 1336 through 1355, it would be said that the consumption amounts of chevon, veal and beef have been steadily increasing during the twenty-year period while mutton consumption graph indicates a downward trend during the cited time.

For instance during the years of 1336 through 1345, average relative amounts of all red meat such as meat of new-born Karakul sheep, mutton, chevon, veal and beef is estimated as 3.69 percent, 67.31 percent, 11.85 percent and 17.71 percent respectively. While in the second decade (year 1346 through 1355) the average relative amounts of all red meat is computed as 3.48 percent (meat of Karakul Sheep), 59.93 percent (mutton), 15.11 percent (chevon) and 21.48 percent veal and beef.

Meat Consumption per Capita

If one studies the Afghanistan distribution of all red meat, it is quite apparent that Afghanistan is a much less meat-producing and consuming nation. As a general rule, consumption of meat is higher in western areas such as Kandahar, Farah, Nimroz and Ghazni that are sparsely populated than in more densely populated regions of the north. For example all types of Pushtoons who are settled in the western and south-eastern parts consume the largest amount of meat per person, these provinces (Kandahar, Farah, Nimroz, Awrozgar, Ghazni, Paktia, Laghman, Nangrahar) possess great expanses of grass lands, and they are sparsely populated.

We know that meat is not the basis of the diet in our country as it is in the western nations. The highest point of red meat consumption per capita in our country was reached in 1337 at 14.46 Kilos, while the highest point of red meat consumption per capita in the United States was reached in 1335 at 75.77 Kilos.

Low point in our red meat consumption occurred in 1350 with 8.04 Kgs consumed per person. Red meat consumption was up in the years of 1337, 1339, 1340, 1341 through 1347 and from 1348 meat consumption per capita declined through 1352 and from 1353 red meat consumption has been steadily increasing. Average red meat consumption per capita during the twenty years (1336 - 1355) is calculated as 11.33 Kgs. per year.

A considerable number of factors may influence consumers in choosing between kinds of meat and between cuts of meat. Among these factors are preference as to taste, use, price, custom, religion and time and facilities for cooking. Considerable differences exist in the meat-consuming habits of the various regions of the provinces.

To a large extent, Afghans in the various regions still prefer the cuts and varieties of meat that were favored by their parents, for example: Landi (dried and cured meat) especially enjoys greatest total popularity in the non-tropical regions such as south and north of Salang, Nahoor, Ghazni, Herat, Parwan and so on, and spare ribs beef is used freely in the provinces of Kabul, Logar, Kandahar and Nangarhar.

Along the eastern and southeastern tier, heavy-weight, top-grade beef is desired. Medium-weight beef, carrying moderate finish, is preferred in the areas of Kabul, Herat and Kandahar.

According to the racial customs of our mixed population and our community customs, meat preferences can be changed. They have changed in many instances and are still changing. For example a change in eating habits is experienced in Kabul, Herat, Kandahar, Mazar-i-Sharif, Kunduz, Nangarhar and Ghazni by an increase in veal and beef consumption from 17.71% in previous years to 21.48% in 1355. At the same time, there was a decline in consumption of mutton from 67.31% to 59.93%.

Only in the year of 1340 chevon consumption registered an increase of 0.86 Kilos, but in the remaining years chevon consumption per capita has almost been fixed.

TABLE 1-9: MEAT CONSUMPTION PER CAPITA IN KILOS

Year	Total Settled Population* from age 3 to Unknown	Total Nomadic Population* from age 3 to Unknown	Total Population of Afghanistan	All Red Meat Production per Ton	Year Consumption per Capita
1336	7,000,971	700,731	7,701,702	86,070	11.2
1337	7,140,990	714,746	7,855,736	113,612	14.4
1338	7,283,610	729,040	8,012,650	90,694	11.3
1339	7,429,480	743,621	8,173,107	101,547	12.4
1340	7,578,076	758,494	8,336,570	107,841	12.6
1341	7,729,637	773,664	8,503,301	116,737	13.7
1342	7,884,230	789,137	8,673,367	100,203	11.6
1343	8,041,915	804,920	8,846,835	106,985	12.0
1344	8,202,753	821,018	9,023,771	114,409	12.6
1345	8,366,808	837,438	9,204,266	114,409	12.4
1346	8,534,145	854,187	9,388,332	114,681	12.2
1347	8,713,302	872,979	9,586,341	116,639	12.0
1348	8,896,344	892,185	9,788,529	116,979	11.8
1349	9,083,166	911,813	9,994,979	116,066	11.6
1350	9,273,912	931,873	10,205,785	82,066	8.0
1351	9,468,664	952,374	10,421,038	90,518	8.0
1352	9,667,506	973,326	10,640,832	95,146	8.0
1353	9,870,524	994,739	10,865,263	98,581	9.0
1354	10,077,805	1,016,624	11,094,429	104,603	9.0
1355	10,289,439	1,038,989	11,328,428	112,986	9.0

SOURCE: National Demographic & Family Guidance Survey of the Settled Population of Afghanistan, Volume I.

Consumption per Capita by Type of Meat

Newborn Karakul Sheep Meat

Analysis indicates that the highest point of karakul sheep meat consumption per capita in our country was reached in 1348 at 0.49 kilos, the lowest point of this type of meat was in the years of 1336 and 1350 at 0.25 kilos.

Mutton

The highest point of ordinary mutton consumption per capita was in the year of 1337 at 11.39 kilos, while the lowest point was reached in 1350 at 0.25 kilos.

Chevon

The highest point of chevon consumption per capita was reached in 1340 at 1.56 kilos and the lowest point was indicated as 0.87 kilos in 1339.

Veal and Beef

The highest point of veal and beef consumption was in the year of 1341 at 1.69 kilos and the lowest point was registered as 1.53 kilos in 1336.

RE: If one studies the table of meat consumption per capita by type of meat, it is quite obvious that there is an increased tendency for all red meat consumption per capita from 1336 through 1348, but from 1349 through 1355 consumption per capita by type of meat indicates a downward trend and from 1351 through 1355 consumption per capita has been steadily increasing.

Table 1 - 10 Meat Consumption per Capita by Type of Meat.

Meat Consumption per Capita by Type of Meat.				
Year	New Born Karakul Sheep	Mutton	Chevon	Veal & Beef
1336	0.25	8.50	0.98	1.53
1337	0.29	11.39	0.96	1.81
1338	0.35	8.05	1.07	1.85
1339	0.39	9.13	0.87	2.04
1340	0.47	7.97	2.36	2.15
1341	0.45	9.22	1.37	2.69
1342	0.40	6.77	1.75	2.64
1343	0.42	7.40	1.83	2.45
1344	0.42	8.00	1.79	2.47
1345	0.41	7.84	1.76	2.42
1346	0.43	7.69	1.72	2.37
1347	0.46	7.53	1.69	2.39
1348	0.49	7.37	1.65	2.34
1349	0.44	7.22	1.57	2.29
1350	0.25	4.24	1.48	2.06
1351	0.27	4.94	1.45	2.02
1352	0.28	5.16	1.47	2.03
1353	0.31	5.45	1.44	1.88
1354	0.32	5.68	1.37	2.06
1355	0.34	6.12	1.34	2.18
Average	0.37	7.28	1.50	2.18

IX. LIVESTOCK SUPPLY AREAS IN AFGHANISTAN IN 1346 (1967/68)

According to a research study which was conducted by the Ministry of Agriculture in 1346 (1967/68) the number of livestock and poultry by provinces was reported as follows:

(see Table 1-11 on following page)

From Table 1-11 estimates of livestock and poultry numbers by province during the year of 1346 (1967/68), the percentage estimates of livestock and poultry numbers by province can be computed, as follows:

A. Sheep

According to the Table 1-12 (the percentage estimates of livestock and poultry numbers on farms by provinces during the year of 1346 (1967/68)) the sheep industry of Afghanistan holds a very important position in the red meat production. In 1346 many provinces such as Badghis, Herat, Samangan, Ghazni, Balkh, Baghlan, Oruzgan, Farah, Ghorat, Takhar, Kandahar, Helmand, Zabul, Badakshan, and Jawzjan were the leading sheep-producing areas of the country. Badakshan, Takhar, Baghlan, Balkh, Jawzjan and Herat are the north and northwest sheep areas. Ghazni, Zabul, Kandahar, Helmand and Farah are the south and southwestern areas. Ghorat and Oruzgan are the only main central sheep regions of the country. The remaining provinces such as Bamyan, Faryab, Kabul, Kunduz, Laghman, Logar, Nangarhar, Nimroz, Paktia, Parwan and Wardak were the outside of the leading sheep-producing zones.

The total number of sheep in the outside of the leading sheep-producing zones were estimated as 16.74 percent, while the total number of sheep in the leading sheep-producing areas was calculated as 83.26 percent of the country.

B. Karakul Sheep

As compared with ordinary sheep, cattle and goats, the karakul sheep production of the country does not take a major important position in the red meat industry, but it holds a main important position in the pelts (karakul) industry. However, the concentration regions of karakul sheep are Jawzjan, Balkh, Faryab, Samangan, Badghis, Kunduz, Takhar, Ghorat and Herat provinces. In other provinces such as Badakshan, Farah and Nimroz, karakul sheep production takes a very much less important position in the country. In the remaining provincial areas karakul sheep industry has not existed.

OVNCS	ORDINARY SHEEP	KARAKUL SHEEP	GOATS	CATTLE	CAMELS	HORSES	BUFFALOES	POULT
ROZGON	578,670	N/A	221,430	159,240	6,100	2,220	N/A	320,17
DAKSHAN	378,770	2,190	253,210	177,450	760	21,160	1,090	220,75
DCHIS	1,393,660	472,750	286,650	103,500	13,510	15,790	320	189,02
GHALAN	621,500	28,000	186,640	116,860	2,210	25,890	N/A	134,45
LKH	807,550	1,393,600	152,440	93,340	8,140	55,000	N/A	215,32
MYAN	255,380	N/A	49,040	144,560	250	6,610	N/A	235,00
RAH	187,040	680	60,850	42,330	9,480	2,210	N/A	158,97
RYAB	310,800	938,280	84,310	196,080	6,630	35,390	N/A	123,72
AZNI	887,600	N/A	42,500	302,690	1,800	2,200	N/A	361,90
DRAT	445,400	10,900	177,230	184,920	N/A	8,500	N/A	113,57
LMAND	399,080	N/A	78,820	61,240	12,230	790	220	242,29
RAT	1,025,440	11,360	268,360	207,520	10,760	18,190	N/A	321,18
WZJON	345,730	2,693,440	135,120	224,740	8,340	63,420	N/A	449,58
BUL	64,080	N/A	9,160	48,400	150	1,240	N/A	144,82
IDAHAR	401,380	N/A	55,300	164,250	23,090	2,270	N/A	210,87
IDUZ	318,240	247,310	73,120	179,700	12,300	18,410	1,700	329,40
HIMAN	48,400	N/A	55,130	35,730	860	1,730	5,030	157,50
IAR	37,290	N/A	3,520	31,680	60	1,140	N/A	129,28
ICARHAR	127,200	N/A	135,400	208,830	1,260	1,900	12,380	249,99
ROZE	233,720	1,000	83,800	30,760	12,520	1,040	N/A	185,00
ITIA	147,170	N/A	227,060	180,420	11,360	1,010	6,910	395,19
IWAN	163,570	N/A	122,800	117,530	540	2,260	5,600	356,02
ANCON	938,430	588,510	104,030	118,300	6,080	50,160	N/A	145,07
HAR	415,240	103,810	164,890	159,120	420	26,140	N/A	128,51
IDAK	707,360	N/A	29,600	59,920	450	N/A	N/A	293,35
UL	392,390	N/A	54,320	31,510	10,720	1,630	N/A	147,20
AL	11,431,080	6,491,890	3,111,890	3,399,530	166,080	367,920	33,310	5,060,22
IADS	3,602,000	-	72,000	203,000	130,000	35,000	-	330,00
JD TOTAL	14,963,080	6,491,890	3,180,730	3,599,520	299,110	402,920	33,310	6,290,22

Table 1 - 12 The Percentage Estimates of Livestock and Poultry Numbers on Farms by Provinces during the Year of 1346 (1967/1968)

[illegible]

C. Goats

Since goats are well adapted to the utilization of pastures, hay, white straws and other roughages, they are to be found in different geographical and agricultural locations where such feeds are abundant. The areas north and south of the Kundi Kush lower parts are suitable mainly for grazing.

Goat population is not distributed more uniformly through the country than ordinary sheep or cattle. The greatest concentration is found in fairly dispersed directions such as Badghis, Herat, Badakshan, Paktia, Baghlan, and Chorat.

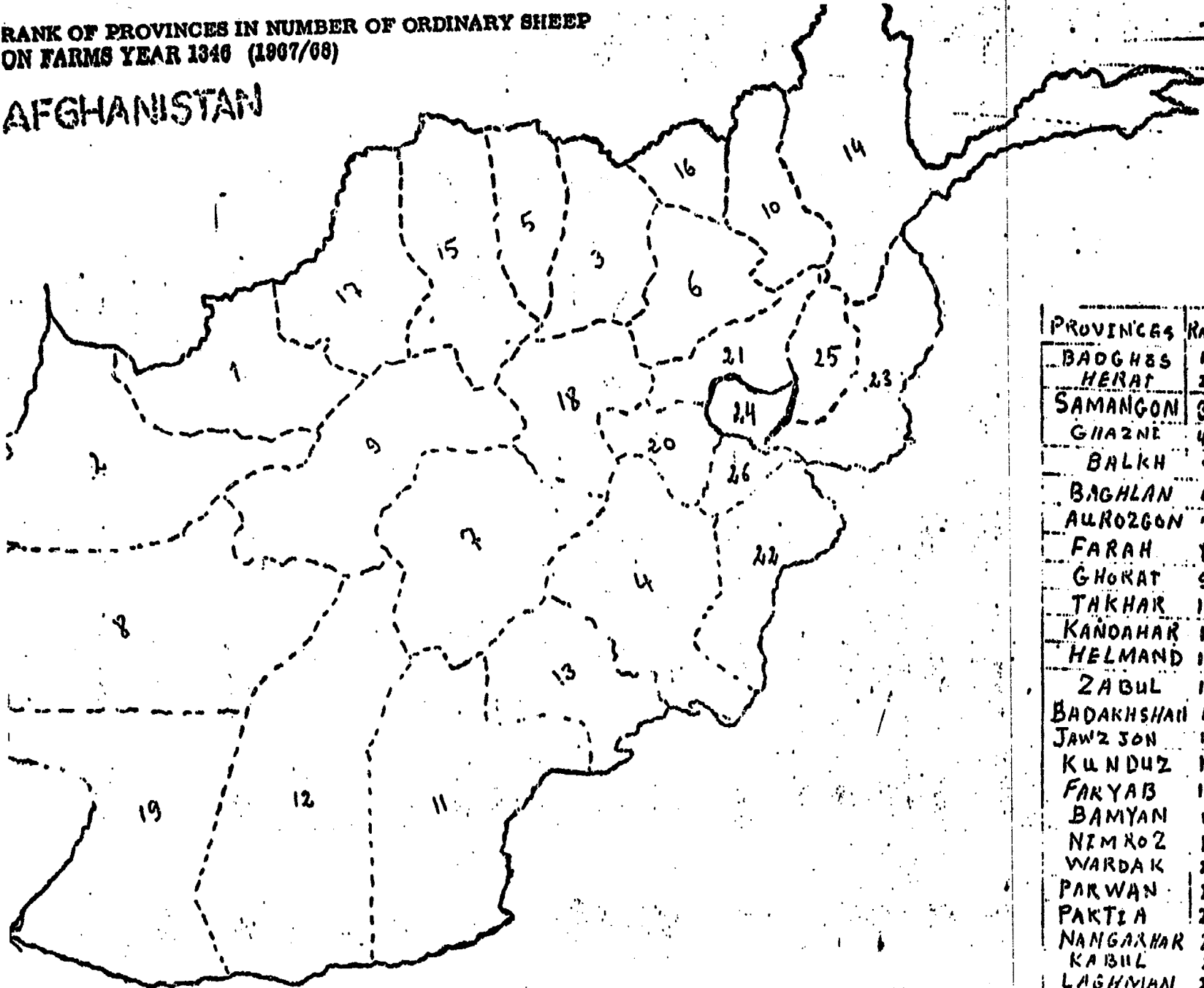
(See following Table 1 - 13, following pages)

Table 1-13 Rank of Provinces in Number of Ordinary Sheep and Karakul Sheep on Farms. Year 1346 (1967/1968).

ORDINARY SHEEP			KARAKUL SHEEP		
RANK	PROVINCES	NUMBER	RANK	PROVINCES	NUMBER
1	BADGHIS	1,393,660	1	JAWZJON	2,693,440
2	HERAT	1,025,440	2	BALKH	1,393,660
3	SAMANGON	938,430	3	FARYAB	938,280
4	GHAZNI	887,600	4	SAMANGON	588,510
5	BALKH	807,550	5	BADGHIS	472,750
6	BAGHLAN	621,500	6	KUNDUZ	247,310
7	AUROZGON	578,670	7	TAKHAR	103,810
8	FARAH	487,040	8	BAGHLAN	28,000
9	GORAT	445,400	9	HERAT	11,360
10	TAKHAR	415,240	10	GORAT	10,900
11	KANDAHAR	401,380	Rank of provinces in Number of Karakul sheep that hold a much less important position in the country are as follows.		
12	HELMAND	399,080			
13	ZABUL	392,390			
14	BADAKHSHAN	378,770	I	BADAKHSHAN	2,190
15	JAWZJON	345,730	II	NIMROZ	1,000
16	KUNDUZ	318,240	III	FARAH	680
17	FARYAB	310,800	In the remaining provincial areas Karakul sheep production is not available.		
18	BAM'YAN	255,380			
19	NIMROZ	233,720			
20	WARDAK	207,350			
21	PARWAN	163,570			
22	PAKTIA	147,170			
23	NANGARHAR	127,200			
24	KABUL	64,080			
25	LAGHMAN	48,400			
26	LOGAR	37,290			

**RANK OF PROVINCES IN NUMBER OF ORDINARY SHEEP
ON FARMS YEAR 1346 (1967/68)**

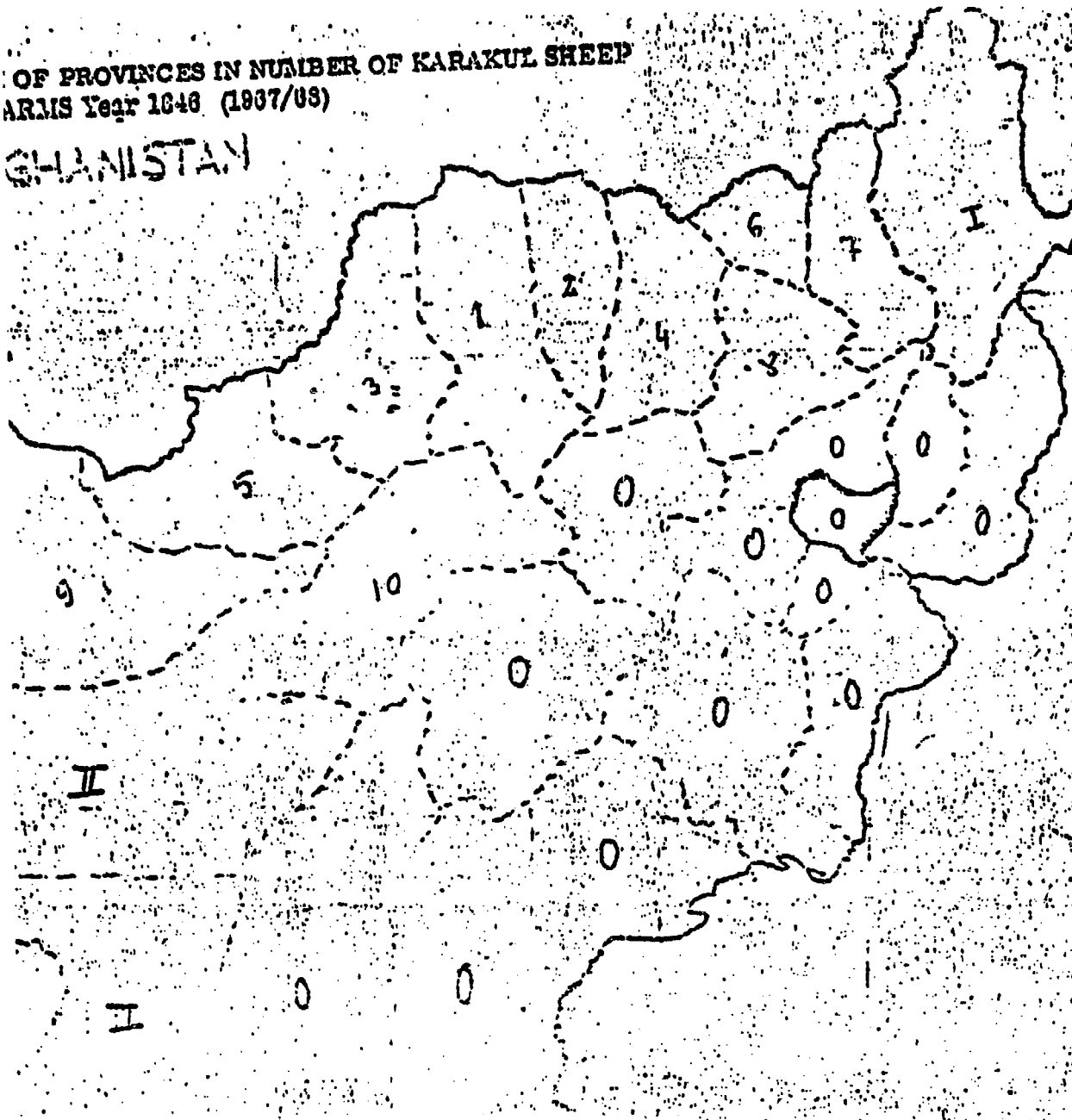
AFGHANISTAN



PROVINCES	RANK
BADKHIS	1
HERAT	2
SAMANGON	3
GHAZNI	4
BALKH	5
BAGHLAN	6
AUROZGON	7
FARAH	8
GHORAT	9
TAKHAR	10
KANDAHAR	11
HELMAND	12
ZABUL	13
BADAKHSHAN	14
JAWZJON	15
KUNDUZ	16
FARYAB	17
BAMYAN	18
NIMROZ	19
WARDAK	20
PARWAN	21
PAKTIYA	22
NANGRAHAR	23
KABUL	24
LAGHMAN	25
LOGAR	26

OF PROVINCES IN NUMBER OF KARAKUL SHEEP
 ARMS Year 1346 (1937/38)

GHANISTAN



PROVINCES RANK	
JAWZJON	1
BALKH	2
FARYAB	3
SAMANGON	4
BADGHIS	5
KUNDUZ	6
TAKHAR	7
BAGHLAN	8
HERAT	9
GHORAT	10

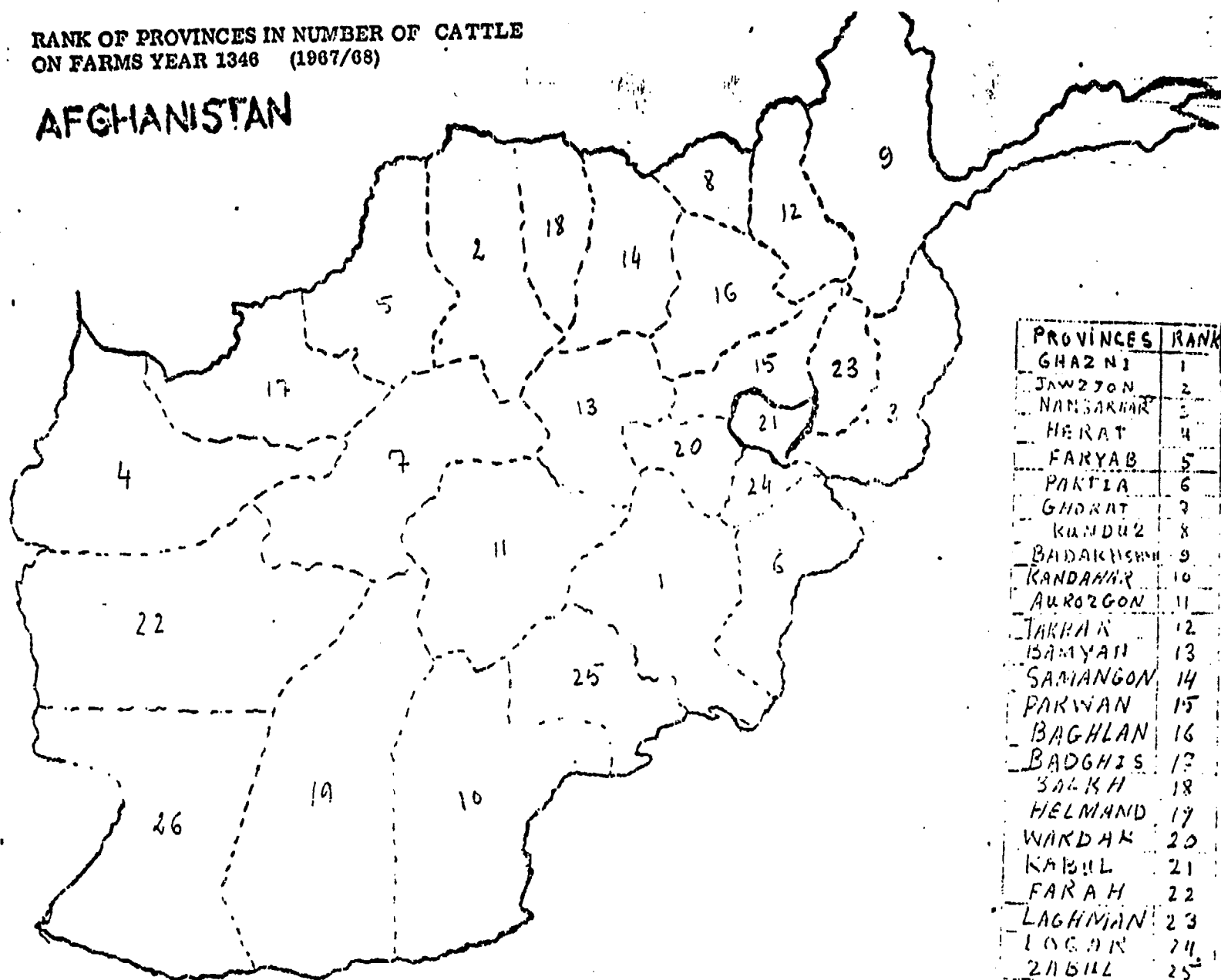
BADAKHSAN	I
NIMROZ	II
FARAH	III

Rank of Provinces in Number of Goats and Cattle on Farms Year 1346
(1967/1968).

GOATS			CATTLE		
RANK	PROVINCES	NUMBER	RANK	PROVINCES	NUMBER
1	BADGHIS	286,650	1	GHAZNI	302,690
2	HERAT	268,360	2	JAWZJON	224,740
3	BADAKHSHAN	253,210	3	NANGARHAR	203,830
4	PAKTIA	227,060	4	HERAT	207,520
5	AUROZGAN	221,430	5	FARYAB	196,080
6	BAGHLAN	186,640	6	PAKTIA	190,420
7	GHORAT	177,230	7	GHORAT	184,920
8	THKHAR	164,890	8	KUNDUZ	179,700
9	BALKH	152,440	9	BADAKHSHAN	177,450
10	NANGARHAR	135,400	10	KANDAHAR	104,250
11	JAWZJON	135,120	11	AUROZGAN	159,240
12	PARWAN	122,800	12	TAKHAR	150,020
13	SAMANG	104,030	13	BAMYAN	144,560
14	FARYAB	84,310	14	SAMANGAN	118,300
15	NIMROZ	83,800	15	PARWAN	117,530
16	HELMAND	78,820	16	BAGHLAN	116,860
17	KUNDUZ	73,120	17	BADGHIS	103,500
18	FARAH	60,850	18	BALKH	93,340
19	KANDAHAR	55,300	19	HELMAND	61,240
20	LAGEMAN	55,130	20	WARDAK	59,920
21	ZABUL	54,320	21	KABUL	48,400
22	BAMYAN	49,040	22	FARAH	42,330
23	GHAZNI	42,500	23	LAGHMAN	35,730
24	WARDAK	29,600	24	LOGAR	31,680
25	KABUL	9,160	25	ZABUL	31,510
26	LOGAR	3,520	26	NIMROZ	30,750

RANK OF PROVINCES IN NUMBER OF CATTLE
ON FARMS YEAR 1346 (1967/68)

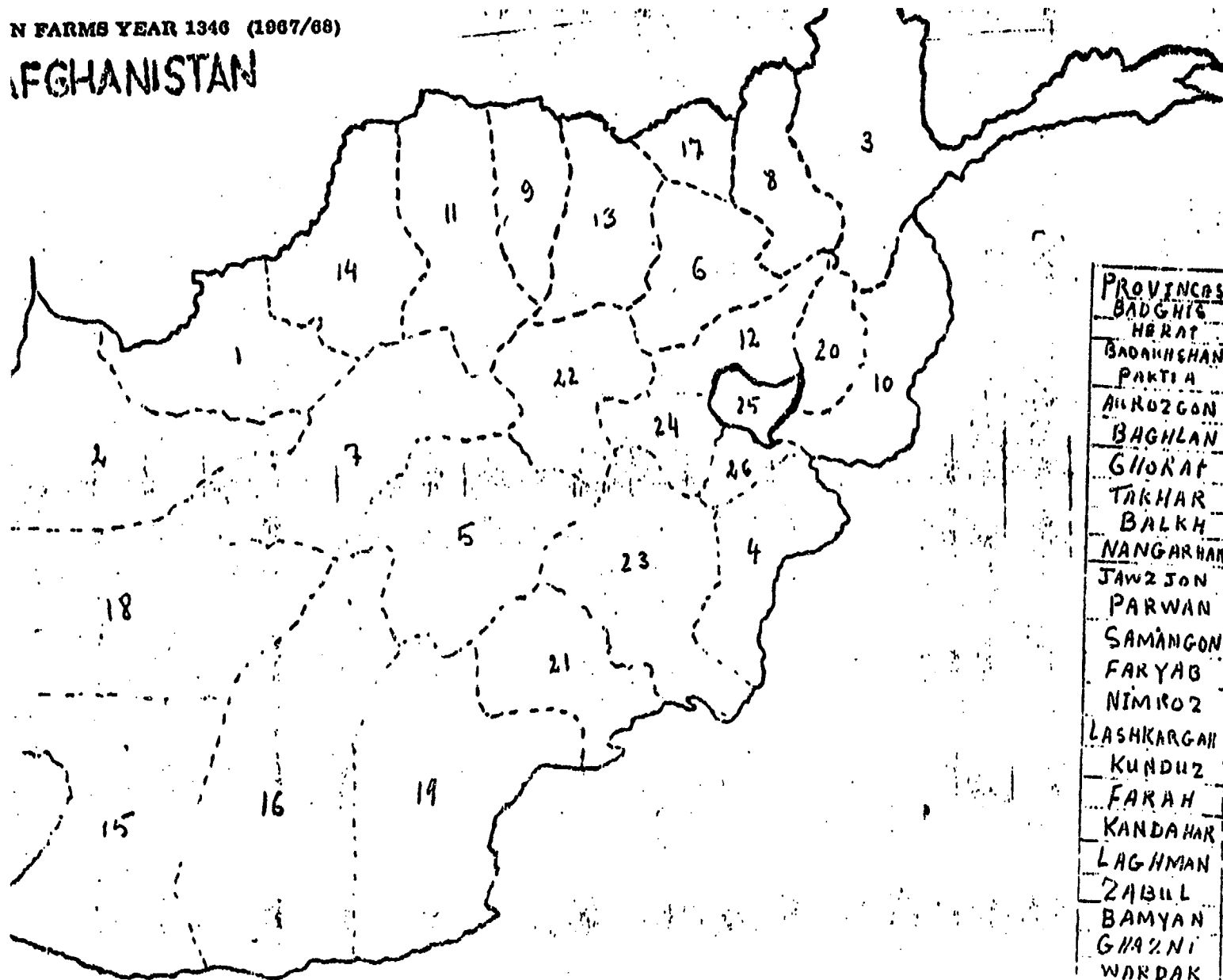
AFGHANISTAN



PROVINCES	RANK
GHAZNI	1
JAWZJON	2
NANSAKUR	3
HERAT	4
FARYAB	5
PAKTIYA	6
GHORAT	7
KUNDUZ	8
BADAKHSHAN	9
KANDAHAR	10
AUROZGON	11
TAKHARA	12
ISAMYAN	13
SAMANGON	14
PAKTIYA	15
BAGHLAN	16
BADGHIS	17
BALKH	18
HELMAND	19
WARDAK	20
KABUL	21
FARAH	22
LAGHMAN	23
LOGAR	24
ZABUL	25
NIMROZ	26

N FARMS YEAR 1346 (1967/68)

AFGHANISTAN



PROVINCES	RANK
BADGHIS	1
HERAT	2
BADAKHSHAN	3
PAKTI A	4
AKROZGON	5
BAGHLAN	6
GHOZAT	7
TAKHAR	8
BALKH	9
NANGARHAR	10
JAWZJON	11
PARWAN	12
SAMANGON	13
FARYAB	14
NIMROZ	15
LASHKARGAH	16
KUNDUZ	17
FAKAR	18
KANDAHAR	19
LAGHMAN	20
ZABUL	21
BAMYAN	22
GHAZNI	23
WARDAK	24
KABUL	25
LOGAR	26

GOATS AND CATTLE

A. Goats: Goats contribute significantly to village milk and chevon production. People of Afghanistan usually prefer to consume chevon during the summer; villagers make ropes and floor mats from goat hair; goats have high capability to lead sheep to their grazing areas and guide them for long distances in search of feed.

A doe goat is milked for 60-70 days and produces about 300-400 grams of milk daily.

B. Cattle: Cattle are used as the major source of draft power for agriculture. They are good contributors of milk products. Villagers and nomadic families know that milk plays a major role in their daily diets. In some provinces cattle manure is used as fuel where wood is scarce.

Kandahari, Sistani, Kunari, and Watani (locally) are the four indigenous breeds of Afghan cattle. Kunari cattle are found in the eastern provinces such as Kunara and Nangarhar. Kandahari cattle are found in the areas of Kandahar, Helmand and sometimes in Zabul and Ghazni provinces. Watani and Sistani cattle are settled in the northern and western parts of Afghanistan.

Cattle population is distributed almost uniformly through out the country. In 1346 the leading cattle-producing areas were Ghazni, Jawzjan, Herat, Nangarhar, Faryab, Paktia, Ghorat, Kunduz and Badakshan provinces. The remaining provinces such as Kandahar, Oruzgan, Takhar, Bamyan, Samangan, Parwan, Baghlan, Badghis, Balkh, Helmand, Wardak, Kabul, Farah, Laghman, Zabul, Logar and Nimroz were the outside leading cattle-producing provinces. The concentration areas of all animal species, especially cattle and goats are determined chiefly by the kinds of crops that can be grown mostly advantageously in the various regions, because cattle and goats are well adapted to the utilization of all roughages.